

Trophic factors in cerebrospinal fluid and spinal cord of patients with tropical spastic paraparesis, HIV, and Creutzfeldt-Jakob disease

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HTLV-1-associated myelopathy/tropical spastic paraparesis (TSP/HAM) is a chronic CNS disease characterized by axomyelinic degeneration of the long axons of corticospinal tracts. Levels of NGF, NT-3, NT-4/5, BDNF, GDNF, CNTF, and FGF-2 were measured in the cerebrospinal fluid (CSF) of 21 TSP/HAM patients and 20 controls. NGF, BDNF, and FGF-2 levels were also determined in 19 patients with HIV motor cognitive motor syndrome, and in 21 subjects diagnosed with Creutzfeldt Jakob disease (CJD). No significant differences were detected in the concentrations of NGF, BDNF, NT-3, NT-4/5, GDNF, and CNTF in the CSF between TSP/HAM patients and controls. FGF-2 was significantly lower in the CSF of the three groups of patients compared with controls; the HIV group exhibited the lowest values. HIV patients differed from TSP/HAM in their significantly higher levels of NGF and lower levels of BDNF and FGF-2, whereas CJD patients differed only in their higher levels of NGF. Immunohistochemical studies w